

Amendment and Response

Applicant: Cyrille de Frebisson, et al.

Serial No.: 10/689,143

Filed: October 20, 2003

Docket No.: 100204485-1

Title: DEFECTIVE DATA SITE INFORMATION STORAGE**SEP 28 2006****IN THE CLAIMS****This listing of claims will replace all prior versions, and listings, of the claims:**

1. (Currently Amended) A method of storing defective data site information for a storage device, the method comprising:
 - determining a first defective data site associated with the storage device;
 - determining a second defective data site associated with the storage device;
 - determining a spacing value that represents spacing between the first defective data site and the second defective data site, wherein determining the spacing value comprises determining a difference value; and
 - storing the spacing value in or on the storage device.
2. (Cancelled)
3. (Previously Presented) A method of storing defective data site information for a storage device, the method comprising:
 - determining a first defective data site associated with the storage device, wherein the first defective data site has a first data site number;
 - determining a second defective data site associated with the storage device, wherein the second defective data site has a second data site number;
 - determining a spacing value that represents spacing between the first defective data site and the second defective data site, wherein determining a spacing value comprises determining a difference between the first data site number and the second data site number;
 - and
 - storing the spacing value.
4. (Cancelled)
5. (Previously Presented) A storage device operably couplable to a host and having data sites for storing data, the data sites comprising defective data sites, wherein the storage device

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maintains defect information reportable to the host, the defect information comprising a spacing value that represents spacing between defective data sites of the storage device.

6. (Original) The storage device of claim 5, wherein the data sites comprise sectors; further wherein the differences in location between defective data sites are differences in sector numbers.
7. (Original) The storage device of claim 5, wherein the storage device comprises MRAM.
8. (Original) The storage device of claim 5, wherein the storage device comprises a hard drive.
9. (Original) The storage device of claim 5, in combination with a testing controller operably connectable to the storage device for discovering the defective data sites.
10. (Currently Amended) An electronic system, comprising:
 - a host; and
 - a storage device operably couplable to the host and having data sites for storing data, the data sites comprising defective data sites;
 - wherein the storage device maintains defect information, the defect information comprising a spacing value that represents spacing between defective data sites of the storage device, the defect information usable to hide the defective data sites from the host.
11. (Original) The system of claim 10, wherein defective data site numbers are associated with the defective data sites, the defect information comprising differences between defective data site numbers.
12. (Original) The system of claim 10, wherein the storage device comprises magnetic random access memory (MRAM).

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13. (Original) The system of claim 10, wherein the storage device comprises a hard drive.
14. (Previously Presented) The system of claim 10, wherein the storage device is adapted to report the defect information to the host.
- 15-19. (Cancelled).
20. (Original) A method of associating logical sectors with physical sectors of a storage device, the method comprising:
- defining a logical sector number;
 - determining a differential table value based on the logical sector number;
 - determining an adjustment table value based on the logical sector number; and
 - determining a physical sector number by adding the differential table value and the adjustment table value to the logical sector number.
21. (Original) The method of claim 20, wherein determining an adjustment table value comprises defining a quotient by dividing the logical sector number by a denominator, and using the quotient to obtain the adjustment table value.
22. (Original) The method of claim 20, wherein the differential table has one entry per logical sector; further wherein the adjustment table has one entry per multiple logical sectors.
23. (Original) The method of claim 22, wherein determining an adjustment table value comprises defining a quotient by dividing the logical sector number by a denominator and using the quotient to obtain the adjustment table value; further wherein the number of multiple logical sectors is equal to the denominator.
24. (Previously Presented) One or more computer-readable media having stored thereon a computer program that, when executed by a processor, causes defective data site information storage according to the following method:

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determining a first defective data site associated with the storage device;
determining a second defective data site associated with the storage device;
determining a spacing value that represents spacing between the first defective data site and the second defective data site; and
storing the spacing value in or on the storage device.

25. (Cancelled)

26. (Original) One or more computer-readable media having stored thereon a computer program that, when executed by a processor, causes association of logical sectors with physical sectors of a storage device according to the following method:

defining a logical sector number;
determining a differential table value based on the logical sector number;
determining an adjustment table value based on the logical sector number; and
determining a physical sector number by adding the differential table value and the adjustment table value to the logical sector number.